

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

## UNITED STATES PATENT AND TRADEMARK OFFICE

### BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte JOSEPH P. KRONZER and JAMES F. DYRUD

MAILED

MAY 30 2006

U.S. PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

Appeal No. 2006-1286  
Application No. 08/661,834

ON BRIEF

Before OWENS, CRAWFORD and BAHR, Administrative Patent Judges.

BAHR, Administrative Patent Judge.

### DECISION ON APPEAL

This is a decision on appeal from the examiner's rejection of claims 25-37.

We AFFIRM-IN-PART.

BACKGROUND

The appellants' invention relates to fibrous filtration masks that maintain low degrees of surface fuzz after being subjected to abrasion. Claims 25 and 31 are representative of the invention and are reproduced *infra* in the opinion section of this decision.

This is the fourth time this application has come before this Board. In a decision in Appeal No. 98-0809, mailed February 11, 1999, an earlier panel held that claims 25-34 were unpatentable over Dyrud (U.S. Pat. No. 4,807,619 issued February 28, 1989 to James F. Dyrud et al.) and affirmed the examiner's rejection under 35 U.S.C. § 103. Subsequent to further amendment of the claims, this application came again before this Board. In a decision in Appeal No. 2001-2429, mailed March 19, 2002, a second panel affirmed the examiner's rejection of claims 25-37 under 35 U.S.C. § 103 as being unpatentable over Dyrud. The appellants submitted additional evidence, in the form of a declaration by Joseph P. Krozner filed June 4, 2002 (hereinafter "the Krozner declaration"), in an effort to rebut the conclusion of *prima facie* obviousness by the Board and requested rehearing of the decision mailed March 19, 2002. In a decision on request for rehearing mailed September 30, 2002, that panel clarified its interpretation of the claims on appeal and maintained its affirmance of the obviousness rejection of claims 25-37 but denominated that affirmation as a new ground of rejection pursuant to 37 CFR § 1.196(b), thereby allowing the appellants to have that additional

evidence, along with any arguments directed to that interpretation of the claims, entered and considered by the examiner.

The examiner has maintained the rejection of claims 25-37 under 35 U.S.C. § 103 as being unpatentable over Dyrud. That rejection is the subject of this appeal.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding this appeal, we make reference to the examiner's supplemental examiner's answer (mailed March 16, 2005) for the examiner's complete reasoning in support of the rejection and to the appellants' brief (filed October 14, 2003) and reply brief (filed February 17, 2004) for the appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied Dyrud patent, to the Krozner declaration and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the following determinations.

Claims 25 and 31 read as follows:

25. A fibrous filtration face mask for filtering contaminants and/or particulate matter, which comprises:
  - (a) a means for securing the mask to the face of the wearer; and
  - (b) a non-woven fibrous layer attached to the securing means and containing (i) at least about 40% wt. % thermally bonding fibers based on the weight of the fibers in the non-woven fibrous layer, at least about 10 wt. % of the fibers in the non-woven fibrous layer being bicomponent fibers, and optionally (ii) staple fibers, the non-woven fibrous layer being molded in a cup-shaped configuration and having a surface fuzz value of not less than 7.5 after being subjected to a surface fuzz abrasion test, with the proviso that if the bicomponent fiber content is 85 weight percent or greater, then the surface fuzz value exceeds 8.0.
31. The face mask of claim 25, wherein the surface fuzz value is not less than 8.4 regardless of bicomponent fiber content.

Our review of this appeal necessarily begins with claim interpretation.

Specifically at issue in this appeal is the interpretation of the claim limitation "with the

proviso that if the bicomponent fiber content is 85 percent or greater, then the surface fuzz value exceeds 8.0" and its impact on the scope of claim 25. We agree with the appellants' contention on page 4 of the brief that this claim language "sets the condition that if the bicomponent fiber content is 85 percent or greater, then the surface fuzz value exceeds 8.0" (emphasis ours). Placing this limitation within the context of the claim as a whole, claim 25 requires the non-woven fibrous layer to have a bicomponent fiber content of at least about 10 weight percent and to have a surface fuzz value of not less than 7.5, unless the bicomponent fiber content is 85 weight percent or greater, in which case the non-woven fibrous layer must have a surface fuzz value exceeding 8.0. Stated differently, claim 25 is met by a mask having a non-woven fibrous layer having from at least about 10 wt. % to less than 85% bicomponent fiber content and a surface fuzz value of not less than 7.5 or a non-woven fibrous layer having a bicomponent fiber content of 85 weight percent or greater and a surface fuzz value exceeding 8.0.

Dyrud does not expressly discuss surface fuzz value. Dyrud does, however, describe a filtration face mask comprising a pair of elastic bands 12 for holding the mask over a human face and a mask body 11 including two resilient shaping layers 15, 17 and a filtration layer 16 sandwiched between the shaping layers. Dyrud teaches that the shaping layers are made from fiber mixtures including staple and bicomponent fiber in a weight-percent ratio ranging from 0/100 to 75/25, preferably with at least 50 weight-

percent bicomponent fiber and, more preferably, at least 75 weight-percent bicomponent fiber (column 4, lines 29-35).

In light of the above, Dyrud would have provided ample suggestion to one of ordinary skill in the art to make the filtration face mask using a shaping layer having 75% weight-percent bicomponent fiber. The test results recorded in the laboratory notebook attachment to the Kronzer declaration provide an evidentiary basis to reasonably support the examiner's determination that the Dyrud shaping layers having less than 85 weight percent (e.g., 75 weight percent) bicomponent fiber content have a surface fuzz value of not less than 7.5 after being subjected to the surface fuzz abrasion test. In particular, the tables on notebook pages 28 and 29 as reproduced in the Kronzer declaration indicate that at least one mask with a 70 weight percent bicomponent fiber content produced using a press temperature of 265° F has a surface fuzz value of 8. Moreover, the tables indicate that the surface fuzz value increases with bicomponent fiber content and press temperature. This data provides sufficient basis to reasonably support a determination that at least some of the Dyrud shaping layers having 75 weight percent bicomponent fiber content made with a mold temperature of about 140° C [284° F], as taught by Dyrud (column 8, lines 18-19) have a surface fuzz value of not less than 7.5 as called for in claim 25, so as to shift the burden to the appellants to prove that this is not the case. See In re Schreiber 128 F.3d 1473, 1478, 44 USPQ2d 1429, 1432 (Fed. Cir. 1997).

In light of the above, the rejection of claim 25, as well as claims 26, 27, 29, 30 and 34, which appellants have not argued separately apart from claim 25, as being unpatentable over Dyrud is sustained. The like rejection of independent claim 32, which differs from claim 25 only in that it omits the optional staple fibers limitation, is also sustained.

The rejections of dependent claims 28, 31, 33 and 35-37, which all recite surface fuzz values of not less than 8.4 regardless of bicomponent fiber content, as being unpatentable over Dyrud cannot be sustained. While shaping layers made in accordance with Dyrud's teachings may in fact satisfy these surface fuzz value limitations, the record is simply devoid of any evidence to reasonably support a conclusion that the surface fuzz values of the Dyrud shaping layers fall within the ranges recited in these claims.

#### CONCLUSION

To summarize, the decision of the examiner to reject claims 25-37 is affirmed as to claims 25, 26, 27, 29, 30, 32 and 34 and reversed as to claims 28, 31, 33 and 35-37.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

*Terry J. Owens*  
TERRY J. OWENS  
Administrative Patent Judge

*M E Crawford*  
MURRIEL E. CRAWFORD  
Administrative Patent Judge

*Jennifer D. Bahr*  
JENNIFER D. BAHR  
Administrative Patent Judge

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Appeal No. 2006-1286  
Application No. 08/661,834

Page 9

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